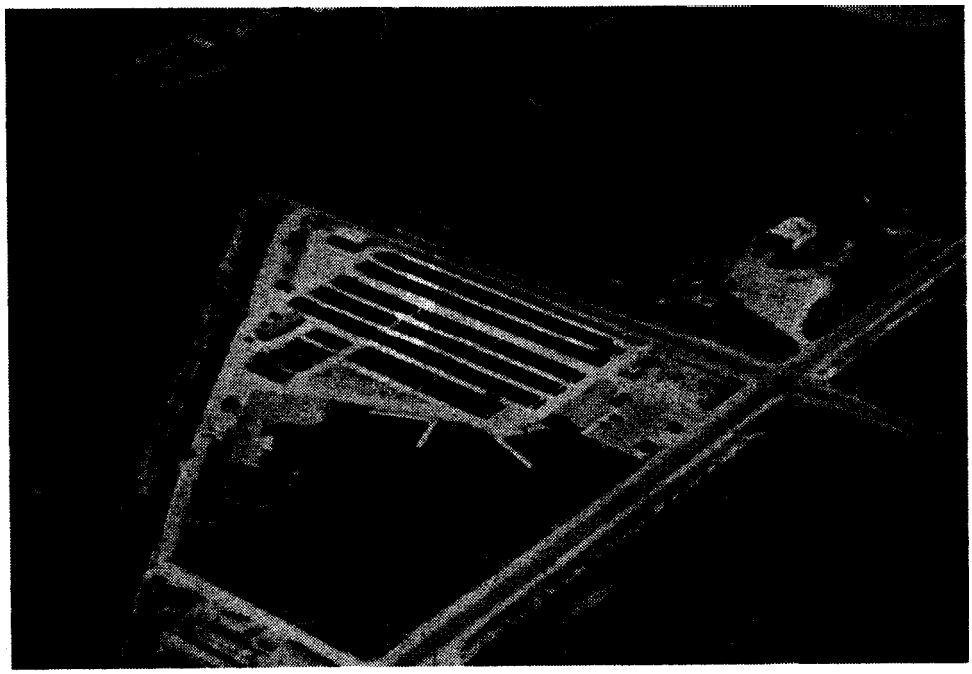
NAMPA HATCHERY
ANNUAL REPORT

October 1, 1985 to September 30, 1986



by
Walter O. Rant
Fish Hatchery Superintendent II

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ABSTRACT

The Nampa Hatchery was scheduled to plant and transfer 250,000 pounds of rainbow and Kamloops trout into streams, lakes, and reservoirs throughout Idaho. Our total production for the hatchery year came to 248,217 pounds of fish reared to be released to waters in Idaho.

We fed 376,084 pounds of feed with a conversion of 1.515 pounds of feed to produce a pound of fish. The total cost of fish feed came to $65,810.65, which comes to $ .18 per pound of fish. The total cost of fish, excluding capital outlay, came to $ .49 per pound.

Author:

Walter D. Rast
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INTRODUCTION

Nampa Hatchery is a state-owned trout facility located in Treasure Valley, Canyon County, southwestern Idaho, and is three miles south of Nampa. The water supply consists of eight (16-inch diameter) artesian wells (6 are located on hatchery property, and 2 belong to Nampa-Meridian Irrigation District) that provide a total of 31 to 36 cfs of 59°F water. It appears the water table is directly related to water levels of Lake Lowell, and irrigation season. Some of the "old timers" say this water was not here on the surface prior to the construction of Lake Lowell. Water chemistry and quality of the well's water is well within desirable ranges for coldwater fish culture, except that it is high in nitrogen gas; but with the aid of packed columns and pumps, this is lowered to tolerable limits.

OBJECTIVES

The objectives of the Nampa Fish Hatchery are:

1. To raise 500,000 fingerling and subcatchable rainbow and Kamloops trout (50,000 pounds) for different waters of the state.

2. To raise 600,000 catchable rainbow trout (200,000 pounds) to be transferred and planted in waters of the state.

FISH PRODUCTION

Rainbow Trout

In recent years, Nampa has been used to produce up to 230,000 pounds of catchable rainbow and Kamloops trout, and 20,000 pounds of fingerling rainbow and Kamloops trout.

The primary strain reared at Nampa Hatchery is R4 rainbow. Production on hand on October 1, 1985 was 669,927 fish (weighing 28,067 pounds). The production on hand on September 30, 1986 was 1,191,845 fish (weighing 57,327 pounds). The hatchery received 1,892,325 eyed eggs during the year. Fish released to waters of the state totaled 791,874 fish (weighing 154,863 pounds).

At the start of the year, R1 rainbow trout on hand totaled 290,769 fish (weighing 16,624 pounds). The year ended with zero fish on hand. We received 201,387 eggs. Fish released to waters of the state totaled 363,989 fish (weighing 63,518 pounds). Transfers to other stations totaled 22,710 fish (weighing 5,700 pounds). We received 139,414 fish (weighing 1,810 pounds) from transfers.

At the start of the year, K1 Kamloops on hand totaled zero fish. Eggs received from Skane's Fish Farm totaled **563,768.** The year ended with zero fish on hand. K1 releases totaled 182,090 fish (weighing 17,200 pounds).

FISH CULTURE

Carrying Capacity

Incubation capacity is 1,600,000 eyed eggs in 16 Upwell incubators. Four of these are located in the hatchery building, and 12 of these can be set up outside in the *fry* ponds. Most of the time, we get our eggs in 250,000 per month; and the fish can be started on feed for ten days in the hatchery building before they are moved to outside raceways.

Early rearing in the nursery building consists of four fiberglass start-tanks measuring 3 ft. x 2 ft. x 12 ft. A total of 400,000 fry can be started on feed 3 to 5 days and moved to larger raceways. By reducing to 200,000 egg orders, the fry can be fed for two weeks before they have to be moved outside.

Outside there are 16 fry raceways measuring 50 ft. x 5 ft. x 1.7 ft. Each is supplied with about 125 gpm water that has passed through a degassing chamber.

Three intermediate raceways measure 180 ft. x 12 ft. x 2.2 ft., and each is also supplied with about 745 gpm. Ten production raceways measure 360 ft. x 12 ft. x 2.9 ft., and each is supplied with about 900 gpm. There is a 200 ft. x 200 ft. waste-water settling pond below the tailrace. Cleaning waste is pumped into the settling pond with a vacuum pump.

Health

All incoming eggs are disinfected in a 1:150 solution of Argentyne for 30 minutes. This is done in an Upwelling incubator with a recirculation pump so that when the eggs' 30-minute disinfecting period is complete, they can be tempered; and at least a 2-hour water absorption period can be given for accuracy of egg measuring.

Hatchery vats are cleaned daily. All nets, brushes, hands, and everything that is used in water is disinfected before and after each use. The hatchery and outside raceways are set up with disinfecting barrels with 600 ppm benzalkonium chloride. All mortality is collected, recorded, and stored in mortality cans with tight lids, and emptied as needed by Idaho Animal Products.

Disease

The Nampa Hatchery has gone 26 months without a viral outbreak; but during March IHN was diagnosed again, and it went through 5 lots of fish. The first lot to contract it was destroyed, but we were not able to keep it contained. The average loss on these 5 lots was 17Z. This did not include the lot of Kamloops loaded on Idaho Animal Products' truck and destroyed. It went through one other lot of Kamloops and three lots of R4 rainbow. During December, two raceways were confirmed with furnculosis. The mortality was minimal, and the fish were fed a diet containing Romet 30.

The other problem encountered was a blue-green algae infection. The fish have a yellow mucous in their lower gut and the intestinal walls are hemorrhaged and deteriorated. The fish excrete a long, white fecal cast. Terramycin may help to control mortalities.

FISH FEED UTILIZED

The fish feed used by Nampa Hatchery came from two contract sources: Rangen's and Clear Springs, both located in Buhl, Idaho.

Table 3 lists sizes, pounds and cost of feed used.

MISCELLANEOUS ACTIVITIES

Limiting factors at Nampa include: (1) the water level of the settling pond and tailrace to the large production raceways is the same as the raceways, which causes cleaning and disease problems; and (2) the close proximity of Lake Lowell and all the drains provide habitat for great blue herons, black-crowned night herons, and gulls that come into the hatchery for easy fishing, which is our greatest source of disease transfer.

Visitors at the hatchery have increased again this year, especially after the welcome sign with visiting hours was set up. Scheduled tours included scouting groups and school children.

There are five sportsmen groups now using the conference room eight evenings per month: the Nampa Rod and Gun Club, Gem State Fly Tiers, Nampa Bow Chiefs, Idaho Free Trappers, and the Gem State Golden Club.

New pieces of equipment purchased include: a Kubota tractor with belly-mount lawnmower and computer components and software. Twenty Austrian pines, nine honey locusts, one green ash, and one flowering dogwood were bid and planted at the hatchery.

ACKNOWLEDGMENTS

Staffing consists of a Fish Hatchery Superintendent II, Fish Hatchery Superintendent I, Fish Culturist, and temporary labor that involves two employees for 14 months. There are three residences. An egg incubation nursery building also serves as the living quarters for temporaries.

Other structures include: a two-stall garage storage building, auxiliary diesel power plant and components building, and an office-conference-shop building.

FISH TRANSFERS

Table 1. Fish transfers from Nampa Hatchery to other stations.

Date	Species	Station	Pounds	Number	Size
4/21/86	R1	Kamiah	3,000	11,100	3.7
5/12/86	R1	Kamiah	2,700	11,160	4.3
Total			5,700	22,260	

FISH RELEASES

Table 2. The following are totals planted in the different regions of the state from the Nampa Hatchery.

Region	Numbers	Pounds
Region 2		
R1	56,225	15,450
R4	14,000	3,200
Region 3		
R1	113,734	33,968
R4	598,354	142,513
K1	96,810	15,600
Region 4		
R1	9,990	2,700
R4	9,990	2,700
K1	85,280	1,600
Region 5		
R1	9,990	2,700
Region 6		
R1	174,050	8,700
R4	169,530	6,450
Total R1	363,989	63,518
Total R4	791,874	154,863
Total K1	182,090	17,200
Grand Total	1,337,953	235,581

FISH FEED UTILIZED

Table 3. Fish feed utilized from October 1, 1985 through September 31, 1986.

Clear Springs

Size	Pounds	Cost
11	350	$ 89.25
12	1,100	279.00
13	3,150	734.65
14	5,050	984.23
15	14,750	2,695.03
1/8	151,090	24,318.85
5/32	61,730	10,126.03
15 TM	2,000	601.80
5/32 Romet	2,000	534.80
Total	241,220	$40,363.64

Rangen's

Size	Pounds	Cost
11	550	$ 160.88
12	2,200	642.87
13	9,600	2,074.00
14	11,700	2,246.46
15	20,635	3,844.84
1/8 Pellet	78,289	12,815.91
5/32	5,890	971.85
1/8 Romet	6,000	2,690.20
Total	134,864	$25,447.01
Grand total: Rangen's and Clear Springs	376,084	$65,810.65

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Submitted by:

Walt Rast
Fish Hatchery Superintendent II

Approved by:

IDAHO DEPARTMENT OF FISH AND GAME

Jerry M. Conley, Director

David L. Hanson, Chief
Bureau of Fisheries

Steven M. Huffaker
Fish Hatcheries Manager